

ABSTRACT

A nozzle orifice of a nozzle 1 comprises a tapered segment 16 extending from an elliptical discharge orifice 15 and having a taper angle θ of 30 to 80°, and a large-diameter segment 18 continuing with the tapered segment, and scale on a steel plate is removed by discharging water from the nozzle at a distance between discharge orifice 15 and the steel plate of not more than 600 mm, a pressure of 5 to 30 MPa, and a discharge flow rate of 40 to 200 l/minute. The ratio of the inner diameter of large-diameter segment 18 relative to the minor diameter of the discharge orifice 15 is not less than 3 and less than 7. Also, the discharge flow from the nozzle spreads in a single direction (width direction) within a plane perpendicular to the central axis of the nozzle and the erosion thickness angle is 1.5 to 3° in the direction (thickness direction) perpendicular to the width direction. Such a descaling nozzle enables that scale is removed efficiently at low pressure and/or low flow rate while restraining the cooling of a steel plate.